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South Carolina Legislative Audit Council

## Report to the General Assembly

**LAC**

October 1995

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# A Review of the Department of Health and Environmental Control's SUPERB Fund and Underground Storage Tank Program



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*A Review of the Department of Health and Environmental Control's SUPERB Fund and Underground Storage Tank Program* was conducted by the following audit team.

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**Report to the General Assembly**

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**A Review of the  
Department of Health  
and Environmental  
Control's SUPERB Fund  
and Underground  
Storage Tank Program**

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# Executive Summary

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Members of the General Assembly requested that we review policy and management issues relating to the Department of Health and Environmental Control's (DHEC) SUPERB fund. The State Underground Petroleum Environmental Response Bank (SUPERB) Act of 1988 was enacted to strengthen regulatory control of underground storage tanks (USTs) and establish a state fund that tank owners and DHEC could use to investigate sites where leaks occurred and clean up the resulting water and soil contamination.

In 1988, the federal Environmental Protection Agency (EPA) issued regulations for tank design and performance. By 1998, all USTs must be upgraded to meet the tank standards or be replaced. EPA regulations also require most owners to demonstrate that they have \$1 million in coverage to pay for cleanups and damage to third parties caused by leaks from USTs. States may, but are not required to, establish state assurance funds to provide the required financial coverage. South Carolina was 1 of 44 states with assurance funds, as of July 1995.

The SUPERB fund has primarily been funded by a ½¢ per gallon environmental impact fee (gasoline tax). In 1992 the General Assembly created a separate fund, the SUPERB financial responsibility fund (SFRF), to provide tank owners with coverage for third party damage claims. By FY 92-93, the liabilities of SUPERB exceeded its revenues. Concerns were raised about fund policy and management. We reviewed DHEC's management of the SUPERB fund and policy issues relating to the fund's liability.

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## Policy Issues

We found that there is a reasonable basis for recommending that SUPERB compensation be discontinued for tank releases (leaks and spills) that occur after 1998. Our findings about fund liability and policy are summarized below:

- ❑ A 1995 study conducted by the Tillinghast actuarial firm concluded that current SUPERB revenues are insufficient to pay current and future claims. The SUPERB account and the SFRF are faced with total claims of \$494 million to \$713 million for tank releases reported through the year 2019. At the end of 2019, liabilities may exceed revenues by \$164 million to \$383 million (see p. 9).



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If SUPERB compensation were not allowed for post-1998 leaks, taxpayers could save between \$77 million and \$175 million.

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- ❑ If SUPERB compensation were not allowed for post-1998 leaks, based on Tillinghast data and projections, SUPERB liabilities as of December 31, 1998, would be from \$194 million to \$292 million. Tax revenues would be sufficient sometime between 2013 and 2021 to pay projected liabilities (see p. 10).
- ❑ If the environmental impact fee were discontinued when liabilities for leaks reported through 1998 are paid, taxpayers could save between \$77 million and \$175 million (see p. 11).
- ❑ When federal regulations for tanks were first issued, private insurance was not readily available for owners. We found, however, that insurance is now available for tanks that meet the 1998 standards (see p. 13).
- ❑ The liability of the SUPERB fund has been increased by its broad coverage. In effect, most tank owners who reported leaks through June 1993 were eligible to receive cleanups that were totally state-funded. Eligibility was not linked to compliance with tank regulations (see p. 13).

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## **SUPERB Fund Administration**

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There have been significant changes to the SUPERB law nearly every year since its passage in 1988, and its administration has presented challenges for DHEC. We focused our review on the two most recent years and found that DHEC has improved its administration of the fund. DHEC has implemented cost control measures.

- ❑ In conjunction with a 1994 statutory change, DHEC has required that tank owners obtain prior approval of costs proposed for the assessment and cleanup of tank sites. This process enables DHEC to better control costs before they are incurred and reduces the chance of disputes (see p. 17).



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DHEC has implemented significant cost control measures.

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- ❑ Since 1993, DHEC has audited selected contractors who have received payment from SUPERB. As of June 1995, DHEC reported that it had recovered \$64,590 in improper payments and identified an additional \$151,478 that was not yet recovered. It is likely that the audit process has decreased improper invoices and payments (see p. 19).
- ❑ Environmental services funded by SUPERB have been purchased primarily by tank owners who cannot benefit from economies of scale and have minimum incentive to control costs. In July 1995, DHEC directly procured limited-scope groundwater assessment services for 50 tank sites with the option of expanding the work to 800 additional sites. Officials estimate this procurement could save the fund \$2.5 million. DHEC plans to expand direct procurement of assessment and cleanup services, which could result in additional savings (see p. 20).

We also reviewed how SUPERB expenditures have been managed to protect the environment. We provide information on the status of cleanup efforts and DHEC's use of a risk-based approach.

- ❑ Until 1993, DHEC did not have a formal priority system to ensure the most serious leaks were cleaned up first. As a result, when SUPERB funding was exhausted, some sites that posed a threat to health and the environment were not cleaned up. The EPA expressed concern that sites requiring immediate corrective action have not been sufficiently addressed (see p. 21).
- ❑ In 1995 DHEC began implementing a new priority ranking system. Each site is being ranked using a risk-based corrective action (RBCA) process. Using RBCA, DHEC will determine the cleanup needed for each site based on the risks to people and the environment. The Tillinghast actuarial study projected that the implementation of RBCA may reduce costs for future reported releases by 13% to 34% (see p. 29).

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## The Underground Storage Tank Program

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Incentives may be inadequate for tank owners to upgrade their tanks.

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Compliance with underground storage tank regulations helps ensure the prevention, detection, and cleanup of contamination caused by leaks or spills from USTs. The SUPERB law may have had a negative effect on overall program success by providing inadequate incentives for tank owners to take necessary preventive measures to upgrade their tanks.

- ☐ Before July 1, 1994, prior non-compliance with state UST regulations did not affect a site's eligibility for SUPERB funds. Owners could intentionally avoid compliance, for example, by not using a leak detection method or not registering their tanks, and still qualify with no penalty for SUPERB-funded cleanups (see p. 31).
- ☐ Although by law owners are financially responsible for cleanup of contamination, DHEC determined that owners did not have to proceed with cleanup while there was no money in the SUPERB fund (see p. 31).
- ☐ Since July 1, 1994, owners must be in "substantial compliance" with tank regulations in order to be eligible for SUPERB funding. However, DHEC did not conduct inspections to determine compliance for 19 of the 29 sites qualified since July 1994. No sites have been disqualified (see p. 33).

We found that DHEC's enforcement of underground storage tank regulations needs improvement.

- ☐ DHEC has not adopted a formal written policy for its inspectors to follow when they identify violations of UST regulations. Policies are needed to streamline the enforcement process, ensure consistency in handling violations, and control follow-up actions (see p. 35).
- ☐ DHEC's enforcement efforts could benefit by the establishment of a system for issuing fines for minor violations found during an inspection (see p. 36).
- ☐ DHEC has not met its goals for performing routine inspections of tanks and attending tank installations and abandonments (closures). In 1994 inspectors, on average, performed approximately 120 inspections, 67% of the number required. The inspection process is critical to preventing leaks and minimizing their effect (see p. 38).

# Introduction and Background

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## Audit Objectives, Scope, and Methodology

We were asked by members of the General Assembly to review policy and management issues relating to the Department of Health and Environmental Control's SUPERB fund and underground storage tank (UST) regulatory program. Our specific objectives with references to results of our review are listed below:

- ☐ Review the background and history of the underground storage tank regulatory program and the SUPERB account (see p. 2).
- ☐ Determine the sources and uses of funds for the SUPERB account and the UST regulatory program (see p. 6).
- ☐ Determine the adequacy of the SUPERB account to meet its future obligations and consider alternate funding and policy options (see p. 9).
- ☐ Determine the adequacy of the SUPERB financial responsibility fund (SFRF) to meet its future obligations (see p. 15).
- ☐ Determine whether controls over SUPERB expenditures have been appropriate to minimize costs (see p. 17).
- ☐ Determine whether SUPERB expenditures have been managed appropriately to protect the environment (see p. 21).
- ☐ Determine whether DHEC has managed the UST regulatory program to encourage compliance with mandated tank standards and minimize future cleanup costs (see p. 31).

Our review was limited to the DHEC programs established by the SUPERB Act of 1988, as amended.

We did not review the management of federally-funded underground storage tank cleanups or other programs administered by DHEC. The period of review was the entire SUPERB program history from FY 88-89 to FY 94-95 for some aspects, with more limited periods of review for other areas. (For further discussion of the audit scope and methodology, see Appendix A.) This audit was conducted in accordance with generally accepted government auditing standards.

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## Background

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In the early 1980s, state and federal officials were concerned about severe groundwater contamination caused by petroleum from leaking underground storage tanks (USTs).

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## Federal Requirements

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In 1984, Congress amended the Solid Waste Disposal Act to regulate underground petroleum storage tanks. The act required the U.S. Environmental Protection Agency (EPA) to develop standards for underground storage tank leak detection, prevention, and cleanup.

Generally, underground storage tanks are defined as tanks, including underground pipes connected to them, which are used to contain petroleum or petroleum products and the capacity of the tank system is at least 10% beneath the surface of the ground. USTs are typically located at gasoline stations. Among the tanks specifically excluded from regulation as USTs are farm or residential tanks of 1,100 gallons or less used for storing motor fuel for noncommercial purposes, tanks used for storing heating oil used on the premises, and septic tanks.

The EPA regulations for tank design and performance became effective in 1988. The rules required all tanks installed after 1988 to have underground leak detection systems and to be protected from corrosion, spills, and overflows. Older tanks must be upgraded to meet these standards or be replaced by December 1998 (see Table 1.1).

Recognizing the potential expense involved with cleanups of contaminated sites, Congress also required the EPA to issue rules for owner/operator<sup>1</sup> financial responsibility. Owners had to demonstrate that they had the financial resources to pay for cleanups and damage to third parties caused by leaks from USTs. Under EPA regulations phased in through 1993, most owners must have coverage of \$1 million per occurrence for corrective action

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1 Federal and state law and regulations distinguish between tank owners, who hold title, control, or possess interest in a tank, and operators, who are responsible for the daily operation of a tank. Owners and operators are jointly responsible for compliance with regulations. In this report, we use "owner" to refer to "owners and operators."

**Table 1.1: EPA Deadlines for Storage Tank Standards**

Year Tank Installed	Deadlines	
	Leak Detection Monitoring	Corrosion Protection and Spill and Overflow Prevention Equipment
Before 1965 (or unknown age)	December 1989	December 1998
1965-69	December 1990	December 1998
1970-74	December 1991	December 1998
1975-79	December 1992	December 1998
1980-88	December 1993	December 1998
New Tanks (installed after December 22, 1988)	At installation	At installation

Source: U.S. Environmental Protection Agency.

and compensation of third parties for injury and property damage. Congress established the leaking underground storage tank (LUST) fund to pay for cleanups when the tank owner or operator is unknown or unable to pay.

Tank owners may establish financial responsibility through several methods including insurance, guarantee, surety bond, and qualification as a self-insurer. Also, states may, but are not required to, establish state assurance funds to provide the financial coverage. Because of the difficulty in finding private insurance for old tanks that did not meet the federal standards, most states created assurance funds. As of July 1995, 44 states, including South Carolina, had financial assurance funds.

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## South Carolina Underground Storage Tank (UST) Program

In 1985, prior to federal requirements for USTs, DHEC promulgated UST control regulations. The regulations required that owners notify DHEC of their tanks, obtain permits for new tanks, and carry out corrective action when leaks occurred. As of April 1995, South Carolina had approximately 20,000 registered tanks at more than 6,200 sites across the state. In 1994, DHEC identified underground storage tanks as the source of 1,745 of 2,300 (76%) cases of groundwater contamination in South Carolina.

In 1988, the State Underground Petroleum Environmental Response Bank (SUPERB) Act (§44-2-10 *et seq.* of the South Carolina Code of Laws) was passed to address concerns related to leaking underground storage tank systems. The intent of the SUPERB Act was to strengthen the regulatory control of USTs and establish a state fund that could be used by owners and the department to investigate sites where releases occurred and complete corrective action where necessary.

The SUPERB Act and regulations promulgated in 1990:

- ☐ Required owners to register tanks annually and pay registration fees.
- ☐ Required owners to meet federal requirements for upgrading their tanks.
- ☐ Assigned owners responsibility for preventing, detecting and correcting leaks.
- ☐ Established the SUPERB account to pay for the cleanup of contamination occurring as a result of a tank leak.
- ☐ Provided that the account would pay cleanup costs in excess of \$25,000 by owners who qualified for compensation.

In 1991, the EPA granted conditional approval of the SUPERB fund as a partial financial responsibility mechanism for corrective action. EPA approval is conditional on continued funding of the account. In 1992, the General Assembly created the SUPERB financial responsibility fund (SFRF) to provide tank owners with coverage for third party liability resulting from tank leaks. In July 1994, DHEC requested that the EPA approve the SFRF as a partial financial responsibility mechanism for third party liability. As of August 1995, the EPA had not acted on this request.

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## Changes in the SUPERB Act

With the exception of 1989, the General Assembly has significantly amended the SUPERB Act every year since its passage in 1988. Many of these amendments have involved program funding (see Table 1.2). Other changes have affected the deductible paid by tank owners and the manner in which DHEC administers claims and approves costs that are eligible for SUPERB funding (see pp. 14,17).

**Table 1.2: Legislative Changes In Funding — 1988-1995**  
**SUPERB Account and SUPERB Financial Responsibility Fund**

Year	Legislative Action
1988	SUPERB account established, funded by \$60 per tank annual fee; DHEC to use \$10 per tank for administration.
1990	Established ½¢ per gallon environmental impact fee to be collected until fund reached \$15 million; increased annual tank fee to \$100; increased program administration to \$25 per tank up to \$600,000.
1991	Increased program administration to \$50 per tank up to \$1.2 million.
1992	Created SUPERB financial responsibility fund funded by \$3.5 million from the SUPERB account; amount in excess of \$15 million from SUPERB (\$18.5 million both funds) to go to the general fund; environmental impact fee to be collected until December 1998; entire \$100 tank fee to be used for program administration up to \$3 million.
1993	Allowed DHEC to count “committed funds” in determining fund balance.
1994	Deleted cap on SUPERB account; transferred \$3 million from SUPERB responsibility fund to SUPERB account; SUPERB account to pay SUPERB responsibility fund \$100,000 per month to \$3.5 million; environmental impact fee to be collected through December 2026.
1995	Moved administration of the SUPERB financial responsibility fund to DHEC; SUPERB account to pay SUPERB financial responsibility fund \$100,000 a month up to \$2 million, with payments beginning again if the balance is less than \$1 million.

## Growth in SUPERB Fund Claims

The SUPERB legislation established a regulatory program for underground storage tanks and what is, in effect, an insurance program for UST owners. According to DHEC officials, the agency was unprepared for operating an insurance program. Also, the agency was not initially allocated adequate staff to manage the program. For the three years prior to FY 91-92, the General Assembly allocated 12 new positions to carry out the program. The claims on the fund accumulated. When the program received a total of 43 new positions in FY 91-92 and FY 92-93, DHEC staff addressed the backlog of claims. It became apparent that the SUPERB account did not have funds sufficient to meet claims in the long term.

In FY 92-93, the SUPERB account spent \$17 million more than it took in. Once the balance was exhausted, DHEC has limited expenditures to revenues, including loans from DHEC's other accounts and the SUPERB financial responsibility fund. However, a significant funding gap still exists. A 1995 actuarial study of the SUPERB fund's liability projected that the liability from leaks already reported was between \$223 million and \$297 million as of January 1995 (see p. 9).



## SUPERB Account Revenues and Expenditures

Table 1.3 shows revenues and expenditures for the SUPERB account for FY 88-89 through FY 94-95. The primary source of funding for the SUPERB account is a ½¢ per gallon environmental impact fee (gasoline tax). Revenues from this fee are approximately \$13 million per year.

In FY 91-92 and FY 92-93, the SUPERB account collected less than \$13 million. During FY 91-92, the law required that collection of the impact fee cease when the balance in the SUPERB account reached \$15 million, which occurred that year. As a result, the fee was not collected for seven months and the fund did not receive approximately \$7 million in revenues.

Table 1.3: Revenues and Expenditures for the SUPERB Account

	FY 88-89	FY 89-90	FY 90-91	FY 91-92	FY 92-93	FY 93-94	FY 94-95	Total
<b>Revenues</b>								
Tank Fees	\$1,005,125	\$1,870,098	\$1,538,543	\$1,439,784	\$437,950 <sup>a</sup>	\$136,314 <sup>a</sup>	\$81,656 <sup>a</sup>	\$6,509,470
Environmental Impact Fee			\$12,125,669	\$5,518,805	\$4,372,747	\$13,143,798	\$13,448,870	\$48,609,889
Fines				\$11,750	\$6,250	\$10,000	\$5,900	\$33,900
Interest	\$20,301	\$112,434	\$411,678	\$1,001,372	\$597,892	\$151,008	\$105,203	\$2,399,887
SFRF Loan							\$3,000,000	\$3,000,000
<b>Total</b>	<b>\$1,025,426</b>	<b>\$1,982,532</b>	<b>\$14,075,890</b>	<b>\$7,971,710</b>	<b>\$5,414,839</b>	<b>\$13,441,120</b>	<b>\$16,641,629</b>	<b>\$60,553,146</b>
<b>Expenditures</b>								
Contractual Services	\$61,760	\$738,793	\$1,377,170	\$3,984,386	\$19,068,872	\$16,381,045	\$13,063,412	\$54,675,438
Interest					\$133 <sup>b</sup>	\$94,701 <sup>b</sup>	\$125,124 <sup>b</sup>	\$219,958
Payment to General Fund					\$3,500,000 <sup>c</sup>			\$3,500,000
Repayment of SFRF Loan							\$800,000	\$800,000
<b>Total</b>	<b>\$61,760</b>	<b>\$738,793</b>	<b>\$1,377,170</b>	<b>\$3,984,386</b>	<b>\$22,569,005</b>	<b>\$16,475,746</b>	<b>\$13,988,536</b>	<b>\$59,195,396</b>

<sup>a</sup> In 1992, state law was amended to allow the entire \$100 tank fee to be used for administration. Revenues for succeeding years reflect fees due in prior years.

<sup>b</sup> For FY 92-93 and FY 93-94, DHEC was required to pay interest on outstanding invoices. Some of these invoices were paid in FY 94-95.

<sup>c</sup> In FY 92-93, the General Assembly directed that \$3.5 million from the SUPERB account be used to establish the SUPERB financial responsibility fund.

Source: Department of Health and Environmental Control.

During FY 92-93, the General Assembly directed that the general fund receive the impact fee until the balance of the SUPERB account fell below \$5 million. From July 1992 through February 1993, approximately \$7.3 million was deposited into the general fund.

In addition to SUPERB funds, DHEC has used federal LUST funds to pay for cleanups where the tank owner is unknown or unable to pay. As of September 1994, approximately \$1.4 million in LUST funds had been spent to clean up contaminated tank sites.

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## Program Organization and Administrative Costs

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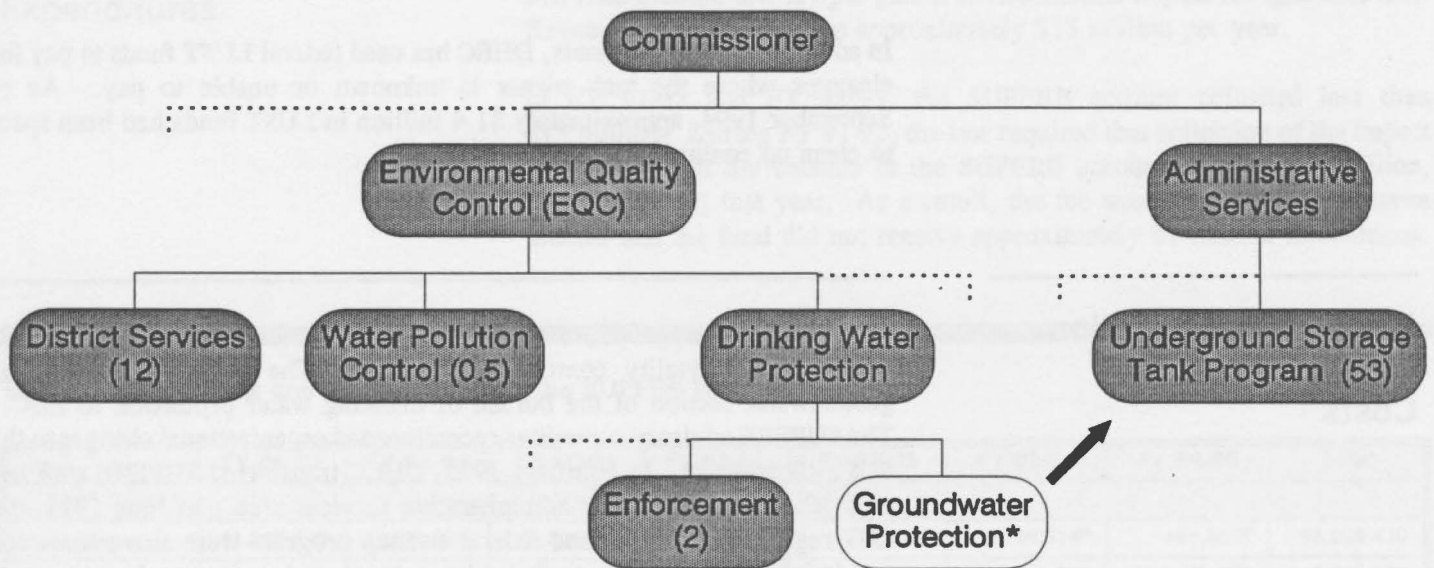
Prior to February 1995, the SUPERB program was a part of DHEC's environmental quality control (EQC) area. The program was in the groundwater section of the bureau of drinking water protection in EQC. The SUPERB advisory committee recommended organizational changes to the SUPERB program. In February 1995, DHEC transferred SUPERB staff out of EQC and into DHEC's administrative services area. In June 1995, the UST regulatory program and federal cleanup program were also transferred to administrative services to form the underground storage tank program.

The administrative costs of the SUPERB/UST program were approximately \$2.76 million in FY 93-94 and \$2.54 million in FY 94-95 (see Appendix B). Most expenditures (over 80% each year) were for personnel. As of June 1, 1995, the program had 67.5 FTEs. There were 53 positions in the underground storage tank program, 2 positions in DHEC's bureau of drinking water protection enforcement section, 12 tank inspectors in the EQC districts, and a 0.5 FTE in the bureau of water pollution control (see Chart 1.1).

Revenues for SUPERB program administration come from three different sources. The largest source of revenue is the \$100 annual tank fee paid by tank owners. Section 44-2-60 prohibits DHEC from using more than \$3 million a year in tank fees for administration. For both FY 93-94 and FY 94-95 DHEC received approximately \$2 million in tank fees.

In addition, the program receives federal funds, and one FTE is paid for by the South Carolina Department of Transportation (DOT). No direct state appropriations have been used for program administration.

Chart 1.1: Department of Health and Environmental Control SUPERB/UST Program Organization—July 1995



( ) = Number of FTEs.

\*Prior to February 1995, SUPERB staff were in the groundwater protection section of the bureau of drinking water protection.

## SUPERB Advisory Committee

In 1994, the General Assembly enacted §44-2-150 to establish a SUPERB advisory committee. The committee was to study the implementation and administration of the SUPERB program and make recommendations to DHEC and the General Assembly on ways to improve the efficiency of the program and to maximize available funds. The 14-member committee, initially appointed by the DHEC commissioner for two-year terms, was to report to the General Assembly by December 1994 and annually thereafter.

The committee met regularly throughout FY 94-95 and issued a preliminary report in February 1995. Several of the committee's recommendations are discussed in this report.

# **SUPERB Fund Policy Issues**

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In this chapter, we address policy issues relating to the SUPERB account and the SUPERB financial responsibility fund (SFRF). A 1995 study conducted by the Tillinghast actuarial firm projected that SUPERB revenues will be insufficient to pay current and future claims. We recommend that SUPERB eligibility be discontinued for tank leaks reported after 1998 to decrease liabilities and realize savings for taxpayers.

We also present information about experience and trends in other states and identify background factors that have increased the liability of SUPERB. In response to our audit objective relating to the SFRF, we report on 1995 statutory changes to this fund.

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## **Liabilities Exceed Revenues**

In 1995, upon recommendation of the SUPERB advisory committee, DHEC hired Tillinghast, an actuarial firm, to project the liabilities of the SUPERB account and the SFRF. Tillinghast developed a range of 25-year projections based on multiple factors. One factor used in projecting liabilities was an estimate of the rate at which tanks are expected to leak. Another factor used was an estimate of savings from risk-based corrective action (RBCA), in which DHEC determines the cleanup needed for each site based on the risks to people and the environment at that site (see p. 22).

Tillinghast's projections do not take into account changes being considered by DHEC in the method by which SUPERB-funded environmental services are purchased (see p. 20). Below we present the findings of the Tillinghast study and make a recommendation to decrease costs.

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## **Revenues and Liabilities Through 2019**

Tillinghast projected the outstanding liabilities of the SUPERB account and the SFRF for tank releases reported as of January 1, 1995, and liabilities from future releases reported during 1995 through 2019. They range from \$494 million to \$713 million, depending on the potential leak rate and the cost reduction expected from risk-based corrective action.

Revenues from the ½¢ per gallon gasoline tax from January 1, 1995, through December 31, 2019, will be approximately \$330 million, according to projections used by Tillinghast.

At the end of 2019, liabilities of the SUPERB account and the SFRF are projected to exceed revenues by \$164 million to \$383 million. If all releases after 2019 were made ineligible for SUPERB compensation, the unpaid portion of the liability would be between \$72 million and \$290 million on December 31, 2026. Section 44-2-90 of the South Carolina Code of Laws ends the SUPERB gasoline tax on December 31, 2026 and requires that costs be paid “. . . so long as funds are available . . . .” Therefore, according to state law, outstanding liabilities after gasoline taxes were depleted would not be paid.

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## Ending SUPERB Eligibility After 1998

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There is a reasonable basis for not allowing SUPERB compensation for tank releases reported after 1998.

The SUPERB account and the SFRF were started after amendments to federal law in 1984 imposed new requirements on the owners of underground storage tanks. Under federal law, all tanks are required to meet new construction and monitoring standards by the end of 1998.

Federal law and regulations also require that tank owners obtain insurance or equivalent coverage to remediate environmental damage caused by leaking tanks and compensate for damages caused to third parties. When the law was enacted, there was limited insurance availability from the private sector. In addition, obtaining coverage for releases which had already occurred was unlikely. To meet the need for tank insurance, SUPERB revenues have been used to provide subsidized coverage to tank owners since FY 88-89.

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If SUPERB compensation were not allowed for post-1998 leaks, taxpayers could save between \$77 million and \$175 million.

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We found, however, that insurance is now available for owners who are in compliance with the 1998 federal tank standards (see p. 13). As a result, there is a reasonable basis for not allowing SUPERB compensation for tank releases reported after 1998.

Using data and projections from the Tillinghast report, we analyzed the fiscal impact of not allowing SUPERB compensation for post-1998 releases. Projected liabilities as of December 31, 1998, range from \$194 million to \$292 million, depending on the potential leak rate and the cost reduction expected from risk-based corrective action.

If all releases after 1998 were made ineligible for SUPERB funding, gasoline tax revenues would be sufficient to pay the projected liabilities sometime between 2013 and 2021. After then, the gasoline tax would no longer be needed, saving taxpayers between \$77 million and \$175 million.

According to a DHEC official, by cleaning up tank release sites in order of the risk they pose to health and the environment, it may be possible to delay cleanup of lower-risk sites without significant additional risk.

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## Recommendations

- 1 The General Assembly may wish to consider amending the SUPERB Act so that underground petroleum storage tank owners and operators are not eligible for SUPERB compensation for leaks reported after December 31, 1998.
- 2 The General Assembly may wish to consider amending the SUPERB Act to discontinue the ½¢ per gallon gasoline tax, used to fund the SUPERB account and the SFRF, after liabilities from underground petroleum storage tank leaks reported through 1998 have been paid.

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## Revenue Bond Funding

The SUPERB advisory committee has discussed ways to increase availability of SUPERB funds so that revenues may be adequate to pay claims. One funding option they have considered is the use of revenue bonds to obtain funds to pay SUPERB claims. Environmental impact fee revenues would be used to pay the bond debt. However, we found that DHEC does not have the legal authority to issue revenue bonds. Also, the environmental impact fee is, in essence, a tax, and the South Carolina Constitution does not allow revenue bond debt to be funded with tax revenues.

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## Experience of Other States

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**Table 2.1: Cumulative Assurance  
Fund Expenditures for UST  
Cleanups, EPA Region IV States**

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State	Claims Paid (Millions)
Florida	\$382.8
Tennessee	\$76.2
North Carolina	\$71.5
South Carolina	\$54.9
Kentucky	\$25.7
Alabama	\$25.1
Mississippi	\$20.7
Georgia	\$18.2

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Source: 1995 documents from EPA Region IV states.

Program officials around the country have found the number of cleanups and their expense to be more than originally anticipated and more than initial funding could pay. According to the EPA, Michigan has declared its fund bankrupt. It became inactive in June 1995. Also, the EPA declared the Illinois fund insolvent and withdrew its approval of the fund as a means for owners to establish financial responsibility.



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## Insurance Availability

According to a 1995 Bureau of National Affairs newsletter, states are taking a second look at state financial assurance funds and asking whether they should continue to provide a financial responsibility vehicle for tank owners. Private insurance is more available now than when the tank regulations were issued in 1988. When tanks are upgraded to 1998 standards, the risks for insurers are more known and measurable. According to the article, some states, including Texas and Florida, have taken measures to turn over insuring tank owners to commercial insurance.

We contacted five insurance companies that were identified as possible providers of corrective action and third-party liability insurance for USTs in South Carolina. Four of the five companies confirmed that they would write this type of coverage in South Carolina. Representatives stated that premiums would vary depending on the age and condition of the tank. They quoted annual premiums as low as \$350 for a new tank.

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## SUPERB Eligibility

Although the cost of environmental cleanups is the major factor determining the liability of the SUPERB account, the broad coverage of the fund has contributed to increased liability. As established in law and administered by DHEC, SUPERB has offered broad coverage to tank owners. Most tank owners who reported releases through June 1993 were eligible to receive cleanups that were totally state-funded. Eligibility was not linked to compliance with tank regulations (see p. 31).

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**Table 2.2: Superb Amnesty Provisions**

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Owner-Paid Deductible	Date Release Reported
None	January 1988–December 1989
\$100,000	January 1990–May 8, 1990
\$25,000	May 9, 1990–June 1991
None	July 1991–June 1993
\$25,000	July 1993–Present

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The broad coverage of SUPERB has contributed to increased liability.

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As shown by Table 2.2, there was an 18-month period between January 1990 and June 1991 when a statutory deductible applied. However, we found that only 26 owners who reported releases during this period were required to pay any portion of the deductible. DHEC, relying on a letter of legislative intent, interpreted the deductible to apply only to costs incurred during the 18-month period. If an owner reported a leak during the period, but did not incur costs at that time, costs incurred after June 1991 were not subject to a deductible. Based on DHEC records, this policy may have cost SUPERB approximately \$325,000 for sites reported between January 1990 and June 1991 that have been cleaned up. There is still a potential cost for those sites remaining open of up to \$16 million.

Also, DHEC interpreted the SUPERB law to allow releases reported prior to January 1, 1988, to be eligible for SUPERB-funded cleanups. An internal DHEC legal opinion concluded that sites reported prior to 1988 should be eligible for SUPERB funding (except for costs incurred prior to that date). According to the Tillinghast study, this interpretation has already cost the SUPERB account approximately \$4.8 million and has increased SUPERB's outstanding liability by \$9 million to \$10 million.

In 1994, §44-2-115 was amended to require that DHEC apply SUPERB eligibility requirements “. . . in a manner favoring eligibility.” One effect of interpretations favoring eligibility is that the SUPERB liability is increased. Also, there may be a disincentive for owners to implement preventive measures to minimize future leaks (see p. 31).

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## Changes in the SUPERB Financial Responsibility Fund

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In 1995, SFRF coverage was limited to reduce its liability.

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Amendments to the SUPERB Act in 1995 limited and clarified SUPERB financial responsibility fund (SFRF) coverage. According to the Tillinghast actuarial study, the change in coverage is projected to have a small impact (less than 0.5%) on lessening the overall SUPERB liability.

The SFRF was created in 1992 to compensate third parties for damages caused by leaks from underground storage tanks. For tank owners, the responsibility fund is a way to meet federal requirements that they have financial responsibility up to \$1 million to meet third-party claims (see p. 2). As established in §44-2-40 (D), the fund was to pay final court-ordered judgments in excess of \$25,000 up to \$1 million, exclusive of legal fees.

The fund was administered by the insurance reserve fund in the State Budget and Control Board. According to insurance reserve officials, the fund was unusual because there was no provision that the fund be notified of pending claims, and no way to settle claims other than by litigation. Administration of the fund was essentially limited to "writing checks." As of August 1995, the fund had paid four claims for a total of \$538,824.

According to the Tillinghast study, there is very little data on the frequency of third-party losses, and to date there has been a very low number of third-party claims in any state. Officials, however, are concerned that the potential severity of third-party property damage losses is high. In South Carolina, the SUPERB advisory committee identified several problems with statutory provisions for the financial responsibility fund and recommended changes.

In 1995 the General Assembly amended §44-2-40 as summarized below:

- ☐ The financial responsibility fund and the SUPERB fund now offer a combined coverage of \$1 million instead of \$2 million (\$1 million each).
- ☐ Administration of the financial responsibility fund was moved to DHEC from the State Budget and Control Board.

- ☐ Tank owners are required to notify DHEC of any third-party claims and DHEC can intervene in their defense.
- ☐ Fund coverage is more specifically limited to actual costs of bodily injury and property damage.

According to the SUPERB advisory committee chair, the committee is pleased with these changes that clarify and limit SFRF coverage.

# **SUPERB Fund Administration**

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In this chapter, we consider DHEC's administration of the SUPERB account. We found that DHEC has improved its internal controls over costs and plans to further lower costs by direct procurement of environmental services.

We also reviewed how the SUPERB fund has been managed to protect the environment. Some sites with significant contamination have not been cleaned up. Lack of funds in the SUPERB account has been a factor limiting cleanup progress. We provide information on the status of cleanup efforts and consider DHEC's move toward a risk-based approach to cleanup.

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## **Cost Controls**

From July 1988 through June 1995, DHEC expended approximately \$55 million for the assessment and cleanup of leaking underground storage tanks. These expenditures included reimbursements to tank owners who had hired and paid contractors and direct payments to contractors hired by tank owners. (See Appendix C for a list of recipients of SUPERB payments.) From July 1988 until April 1995, DHEC had denied approximately \$10 million of invoice claims which were not in compliance with DHEC's guidance documents.

DHEC has implemented significant cost control measures. Changes since 1993 include mandatory prior approval of assessment and cleanup costs, implementation of an audit process, and direct procurement of groundwater testing services. These changes are discussed below with our recommendations for controlling costs further.

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## **Guidance Documents**

Since 1989, DHEC has required that SUPERB assessment and cleanup costs be in compliance with DHEC's guidance documents. The guidance documents list specific cost categories for which SUPERB funding may be received. Allowable costs include items such as personnel, contamination tests, equipment rental, and drilling. Non-allowable costs include items such as the repair or replacement of tanks and loss of revenue during shutdown.

The guidance documents also include maximum rates for items such as personnel (dollars per hour), drilling (dollars per foot), and tests for contamination (dollars per type of test). The maximum rates were established by surveying private sector environmental services firms.

DHEC implemented updated guidelines in 1990, 1991, and 1992. In 1994, DHEC developed updated guidelines with new instructions for determining allowable costs, standard rates for certain types of assessments, reports and surveys, and new payment procedures. DHEC officials stated that they have not implemented the 1994 guidelines because they are now planning to implement a new system of procuring environmental cleanup services (see p. 20).

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## DHEC Approval of Technical Plans and Cost Proposals

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Before September 30, 1994, DHEC allowed tank owners to submit reimbursement invoices for projects whose costs had not been pre-approved by DHEC. For direct payments to contractors, DHEC had a system for pre-approving costs; however, pre-approval was not required.

In 1994, the General Assembly amended §44-2-130 (B) of the South Carolina Code of Laws to read: “. . . After September 30, 1994, no costs will be allowed [for SUPERB compensation] unless prior approval is obtained from the department . . . .” Section 44-2-130 (F) states:

An owner or operator of an underground storage tank or his agent seeking compensation from the Superb Account must submit to the department a written request consisting of a [technical] plan for site rehabilitation and an associated cost proposal in accordance with regulations established by [DHEC] . . . .

DHEC policy now requires that tank owners or contractors hired by tank owners obtain prior approval of technical plans and costs proposed for the assessment and cleanup of tank sites. Approval decisions are based on data from the specific tank sites, state law, and standards in SUPERB guidance documents. This process can enable DHEC to better control costs before they are incurred as well as reduce the chance of disputes over allowable costs.

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## Invoice Review and Audits

Since 1989, DHEC policy has required that invoices from tank owners or their contractors be in compliance with allowable costs in SUPERB guidance documents. DHEC has a streamlined process for reviewing invoices from tank owners and contractors who have received prior cost approval. Department accountants review supporting documentation for expenses and compare the invoices with the cost proposal already on file.

In addition, DHEC added an auditor to its staff in 1993 to determine whether invoices were submitted and paid in accordance with state law and DHEC policy. When improper payments have been found during audits, DHEC has sought repayment from the responsible parties. As of June 1995, DHEC reported that it had recovered \$64,590 from environmental services contractors. An additional \$151,478 in improper payments had been identified but not yet recovered. It is likely that the audit process has decreased the likelihood of improper invoices and payments.

DHEC conducts audits primarily at the offices of contractors hired by the tank owners. In addition, DHEC's auditor has visited tank sites to verify the existence of equipment purchased with SUPERB funds. The auditor reported that, at one site, DHEC staff inspected a well whose depth was in question.

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## Site Visits by Technical Staff

Independent of the audits, DHEC technical staff periodically visit tank sites to monitor assessment and cleanup projects. During these visits, it is not DHEC's policy to formally determine whether procedures have been performed as claimed in invoices by tank owners and/or contractors. Periodic comparison of site observations with SUPERB invoices could provide increased assurance that tank owners and/or contractors submit proper invoices.



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## Recommendation

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- 3 DHEC should implement a formal system in which its technical staff, during their onsite inspections of tank sites, periodically determine whether procedures have been performed as claimed in invoices by tank owners and/or contractors.
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## DHEC Procurement of Environmental Services

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Environmental cleanup services funded by SUPERB have been purchased primarily by the tank owners, within maximum cost limits set by DHEC. The direct procurement of environmental services by DHEC, however, can result in lower costs.

Procurement by tank owners may result in higher prices paid for environmental services due to the following factors:

- ☐ South Carolina tank owners generally do not benefit from economies of scale when purchasing assessment and cleanup services. As of 1995, the average tank owner in South Carolina owned 5.6 tanks.
- ☐ Tank owners have only minimal incentive to control costs. According to the 1995 Tillinghast report, the average cost of assessing and cleaning up underground storage tank leaks is between \$78,000 and \$115,000 per occurrence. Section 44-2-130 of the SUPERB Act requires that tank owners pay a maximum deductible of \$25,000.

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DHEC's direct procurement of assessment and cleanup services can result in lower costs.

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In July 1995, DHEC directly procured limited-scope groundwater assessment services for 50 tank sites. The vendor who was awarded the contract will have the option of assessing approximately 800 additional sites across the state in 50-site increments. This contract was awarded based on competitive bid. Because §44-2-130 (A) permits SUPERB compensation only to tank owners, operators, or their agents, DHEC obtained written permission from tank owners to act as their agent. For the initial groundwater assessment of 850 sites, DHEC officials estimate that they will save approximately \$2.5 million.

DHEC officials reported that they are developing plans to expand direct DHEC procurement to additional environmental services. Through multi-site

contracts and price competition, they plan to reduce the cost of the SUPERB program. DHEC officials state they will control the qualifications of contractors and the quality of their work. Section 44-2-120 was amended in 1995 to require DHEC to promulgate regulations establishing qualifications for contractors.

As of August 1995, DHEC's efforts to expand direct procurement were still in the planning stage.

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## Recommendation

- 4 DHEC should implement its plans to expand direct procurement of SUPERB-funded environmental services. To the extent possible, DHEC's procurement should take advantage of economies of scale and price competition.

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## Cleanup Priorities

One of our objectives was to determine whether DHEC has ensured that the sites with most serious leaks are cleaned up first. We found that DHEC did not have a formal priority system until 1993. Also, inadequate funding for the SUPERB fund has meant that some sites that pose a threat to health and the environment have not been cleaned up.

All releases from underground storage tanks do not pose identical threats to the environment. Leaks and spills can have serious consequences. Petroleum can contaminate drinking water supplies. Also, petroleum and its vapors can accumulate in confined spaces, such as septic tanks, sewers, and the basements of homes. These vapors are poisonous and can cause fires or explosions. Other leaks may be less threatening. Contaminated soil may remediate naturally over a period of time without any significant or lasting environmental harm.

DHEC officials stated that in the early years of the program, the law required them to pay to clean up all eligible sites and they did not have the authority to prioritize. Therefore, releases were usually handled in chronological order. If an emergency release was reported, it would be addressed first.

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Some sites that pose a risk to health and the environment have not been cleaned up.

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**Sites Where Action is Needed**

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We did not find evidence to dispute DHEC's view that as long as funds were available, SUPERB law directed that all eligible claims be funded. However, one effect of this policy has been that SUPERB funds were expended on low priority sites, reducing the amount available for more recently discovered high priority sites.

In 1993, as officials recognized that SUPERB revenues were not sufficient to pay for the rehabilitation of all sites, DHEC implemented the site priority ranking system (SPRS). Staff used this system to rank each site, relative to the others, based on the level of concentration of contaminants at the site.

In 1995, a new ranking system, risk-based corrective action (RBCA), is being implemented. RBCA places a greater emphasis than SPRS on whether the release presents a risk to human health or sensitive environmental area. The risk analysis developed for the site will be used to make cleanup decisions. DHEC could decide what remedial action is necessary and "how clean" a site needs to be based on the information obtained from risk analysis procedures.

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As of June 1995, some high priority sites were not being funded for cleanup. Although state regulations require the owner to take action to clean up releases, DHEC has not enforced those regulations when SUPERB funds are not available (see p. 31).

We reviewed a January 1995 SPRS priority ranking of sites to determine if any of the sites ranked as high priority had not been funded for cleanup. We also reviewed the new RBCA classifications for the top 100 sites on this list, if available, to determine which sites had the highest RBCA classifications.

Remediation work has stopped at some sites with serious contamination. For example, we identified at least four sites, ranked as high priority under both systems, for which remediation efforts ceased when SUPERB funds were depleted. In late 1993 and early 1994, DHEC advised the owners of these and other sites that their sites ranked below many other sites, and no further financial resources could be obligated at that time. The four sites contained "free product," which means that gasoline is floating above the groundwater table. The responsible parties did not continue cleanup efforts; therefore, contamination and environmental risks still exist at these sites.

The EPA, in a March 1995 letter, expressed concern that more than 280 South Carolina sites containing free product were not being sufficiently addressed. The letter states that pursuant to the federal requirements, sites containing free product require certain immediate measures including free product removal. The letter encourages DHEC to find funding for these sites.

After we discussed the status of some high priority sites with DHEC staff, staff stated that they would begin allocating money to fund cleanup efforts on sites such as those we identified as soon as all sites have been ranked under the RBCA system.

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## Recommendation

- 5 DHEC should ensure that cleanup funds are allocated to high-priority sites.
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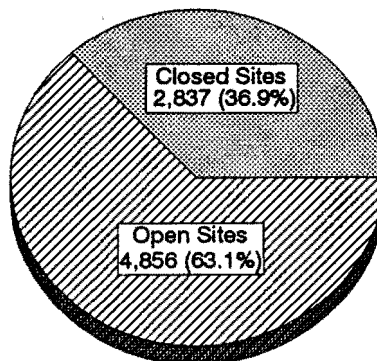
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## Status of Cleanup Efforts

We reviewed information from DHEC's database on sites with suspected or confirmed releases. As of May 12, 1995, the system contained information about 7,693 release reports received by the department since 1988 (see Chart 3.1).

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Chart 3.1: Suspected or  
Confirmed Release Reports,  
1988—May 1995



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## Closed Sites

DHEC's database indicated that DHEC has "closed" (determined that no further action is necessary) 2,837 (37%) sites. We reviewed DHEC's procedures for closing a site as well as a judgmental sample of files. We did not identify problems with agency controls to ensure that sites are closed appropriately.

- ☐ Staff who close sites are required to have appropriate education and training qualifications.
- ☐ Documentation from a certified laboratory of contamination levels is required.
- ☐ Managers review staff closure decisions.

However, DHEC does not have written policies on closure. Written policies would help ensure consistency in decision-making, as well as documentation and communication of decisions to relevant parties.

When a release is reported, a tank is removed from use, or an ownership transfer occurs, DHEC requires the owner to obtain an assessment to determine the level of contaminants in the soil and/or water. If the assessment of the site indicates that no contamination is present, the site can be closed and no further action is required of the owner. DHEC has closed approximately 2,316 (81% of those closed) sites for which releases were reported but never confirmed.

If there is a confirmed release, DHEC can close a site after a cleanup has been completed. The DHEC technical staff review consultants' reports, including lab results, to determine if the contamination remaining is below minimum levels specified in state groundwater standards (see p. 29). If so, the site can be closed. Because South Carolina groundwater standards are stringent, the number of sites cleaned up may be artificially lower than for other states.

Beginning in June 1995, if the level of contamination is still greater than groundwater standards, but is contained and does not pose a threat to human health or environment, DHEC can close the site. Allowing closure based on risk analysis is a part of DHEC's newly adopted policy of risk-based corrective action (RBCA) (see p. 22).

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## Reporting the Number of Cleaned Up Sites

DHEC reports the status of sites to the federal Environmental Protection Agency (EPA). The EPA uses a broad definition of "cleaned up." DHEC may categorize a site as "cleanup complete" without requiring that physical remediation take place. Remediation can be as minimal as spreading contaminated soil to allow it to "bioremediate," or degrade naturally. Under this definition, all closed sites with confirmed releases would also be considered "cleaned up."

South Carolina closes all sites that have a confirmed release as "cleanup complete." Beginning in June 1995, those sites which are not remediated to groundwater standards but pose no threat to human health or the environment will be closed conditionally. A "no further action" letter sent to the responsible party will include the conditions of closure and DHEC will maintain a registry of these sites.

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## Recommendation

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- 6 DHEC should implement written policies for closing sites.
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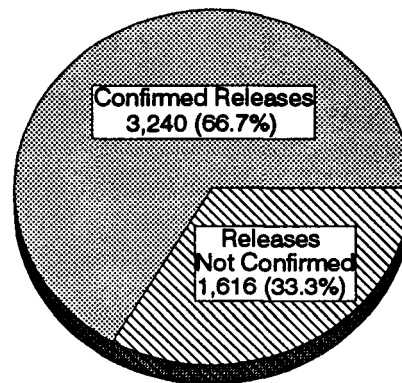
## Open Sites

According to DHEC figures (as of May 12, 1995) for the 4,856 release report files remaining open, 3,240 sites had confirmed releases and 1,616 did not (see Chart 3.2). Those without confirmed releases were files being reviewed as a result of tank closures or suspected releases. The department is addressing the backlog of release reports. As of August 1995, there were only 875 unconfirmed release reports remaining open.

According to DHEC officials, near the end of amnesty periods (when no deductible was required), owners sent in many reports of suspected soil contamination. For example, in June 1993, the last month of the most recent amnesty, DHEC received 191 release reports where the releases have never been confirmed. Officials stated they believe that owners may have notified DHEC of suspected releases at this time as a protective filing (so that the SUPERB fund would cover future cleanup costs with no deductible). Officials stated that some of these reports may not have merit.

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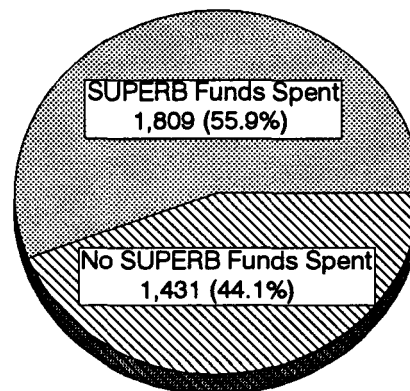
**Chart 3.2: Open Sites With  
Suspected or Confirmed Releases,  
May 1995**



In reviewing all sites open as of May 1995, we found that DHEC had spent \$13,242,829 from the SUPERB fund for corrective action on 707 sites which were open with a confirmed release. For 1,102 sites in the database, DHEC had spent SUPERB funds *only* for assessment/monitoring activities. For all sites open in May 1995, \$32,496,377 had been expended from the SUPERB fund for assessment and monitoring. No SUPERB funds had yet been spent for 1,431 sites with confirmed releases (see Chart 3.3).

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**Chart 3.3: Open Sites With  
Confirmed Releases, May 1995**





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## Database Reliability

The status information discussed above should be considered approximate because evidence indicates that data in DHEC's groundwater tracking system database is not reliable. We noted numerous errors in data entry as we reviewed and analyzed information retrieved from the system. There are inadequate controls to ensure that dates and other information in the database are consistently and accurately entered. Also, the database could be improved to aid in the compliance process (see p. 40). Written policies for all phases of administration of the underground storage tank program should include policies and controls to better ensure the accuracy of the program's database.

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## Recommendation

- 7 DHEC should implement policies to ensure consistent and accurate entry of data in the groundwater tracking system.

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## Data From Other States Not Comparable

Table 3.1 shows status information for states in EPA's region IV, as compiled by the EPA. However, because reporting policies are not uniform, state comparisons have little validity.

The table shows that South Carolina has the fewest confirmed releases (3,802) and the fewest cleaned up sites (528) of the region IV states. South Carolina officials identified reasons why their numbers may appear lower than they would if data were more comparable. For example, South Carolina counts confirmed releases by site instead of by tank. According to a DHEC official, it is sometimes hard to determine if only one tank has contributed to a leak; therefore, it is more practical to confirm a release on the site. According to the 1995 actuarial study done for the SUPERB fund, other states report releases by tank. If more than one tank at a site has leaked, they count multiple releases.

States also differ in their definition of "confirmed release." North Carolina, for example, counts release reports as cleanups initiated even though the contamination may be minimal. South Carolina does not confirm a release unless contamination is greater than allowed by groundwater standards.

In a 1992 letter to DHEC officials, the EPA acknowledged that some states count releases with contaminants below acceptable limits as cleanups completed. The letter confirmed that the EPA allows flexibility in reporting "at the expense of consistency."

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**Table 3.1: Underground Storage Tank Data—EPA Region IV States, 1995**

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State	Active Tanks	Confirmed Releases	Sites Cleaned Up
Alabama	22,945	7,157	4,743
Florida	44,482	24,111	2,993
Georgia	48,837	5,331	2,181
Kentucky	22,367	5,124	2,692
Mississippi	11,927	4,112	3,541
North Carolina	44,206	17,441	11,847
South Carolina	20,263	3,802	528
Tennessee	29,629	7,764	5,863

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Source: U.S. Environmental Protection Agency.

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## **Risk-Based Approach to Water Quality Standards**

The SUPERB program is moving away from strict adherence to the state's groundwater standards toward a risk-based approach. According to the Tillinghast actuarial study completed in June 1995, the effects of implementing risk-based corrective action may reduce costs for future reported releases by 13% to 34%.

State Regulation 61-68 establishes the state's water standards. The regulation states that "it is a goal of the Department to maintain or restore ground water quality so it is suitable as a drinking water source without any treatment." DHEC officials stated that SUPERB program goals continue to be adherence to water quality standards.

The officials stated that over time contaminants in petroleum, unlike other contaminants, will "bioremediate," or naturally degrade so that contamination no longer exists. Also, current technology makes it very difficult and expensive to restore water contaminated by a leak from an underground storage tank to drinking water standards. Further, in some cases, the likelihood that anyone would want to use the affected water for drinking is remote. (Contaminated groundwater under a paved parking lot in downtown Columbia is an example commonly used for illustration.)

The SUPERB advisory committee recommended in February 1995 that the department not use the state's groundwater protection standards as cleanup standards for the SUPERB program. The committee recommended that regulations be revised to incorporate site-specific corrective action goals.

An April 1995 memorandum from DHEC's legal office stated that it would be proper and not in conflict with Regulation 61-68 to close some sites with petroleum contamination in excess of the standards established in the regulation. DHEC could appropriately determine that no further action is necessary for sites that do not present a risk to human health or the environment and where the contamination will naturally degrade over time.

There are no federal standards for groundwater quality. Other EPA Region IV states (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, and Tennessee) have established varying standards for cleanup of petroleum. The EPA has a draft policy statement that encourages the use of risk-based decision making as an integral part of the corrective action process.

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Implementing risk-based  
corrective action may reduce  
costs by 13% to 34%.

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## Other Environmental Programs

The move away from strict use of the groundwater standard for SUPERB-funded cleanups raises policy issues for DHEC. According to a DHEC official, other groundwater programs administered by DHEC have not used a risk-based approach to water quality standards. The official stated there may be a lack of consistency in policy if different programs use different standards to determine "how clean is clean," or if standards are different when public funds are paying instead of private funds. A groundwater managers' committee is addressing these issues.

# Underground Storage Tank Regulatory Program

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## Incentives for Increasing Compliance

The SUPERB law may have had some negative effects on overall program success by providing inadequate incentives for tank owners to take the necessary preventive measures to upgrade their tanks. Also, while regulations require owners to take action to remediate contaminated sites, in practice, DHEC has not penalized owners for inaction if SUPERB funds were insufficient to pay for the cleanup.

Avoiding leaks benefits both the environment and business by helping to prevent pollution and avoid costly cleanups. A July 1990 EPA publication estimated that up to 25% of all USTs may be leaking and that the average cost to clean up a leak can exceed \$100,000. In addition, businesses can suffer losses as a result of having their tanks removed from service during a lengthy cleanup process.

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## Disincentives for Compliance

Before July 1, 1994, prior non-compliance with regulatory requirements did not affect a site's eligibility for SUPERB funds. As a result, owners who may have intentionally avoided compliance were still eligible to have their contaminated sites cleaned up using solely state funds. For example, federal regulations required that all tanks 13 years old or older have a leak detection method by December 1992. However, if an owner had not complied with this requirement but reported a leak before June 1993, he would still be eligible for SUPERB with no penalty or deductible. If an owner had failed to register his tanks or pay annual registration fees, he could do so without penalty at the time his leak was reported and be entitled to a SUPERB-funded cleanup.

Effective July 1, 1994, state law was amended to require that eligibility for the fund would be limited to owners who had demonstrated a "good faith effort" to comply with UST regulations. However, DHEC has not yet adequately implemented this provision (see p. 33).

Another factor affecting compliance is DHEC's decision not to require owners to proceed with site cleanup when no money is available from the SUPERB fund. Under federal and state law, the owner is financially responsible for the cleanup of contamination. However, in an October 1993 DHEC board meeting, it was determined that owners whose sites were eligible for SUPERB funds did not have to proceed with cleanup while there was no money in the fund. Postponing cleanup of a contaminated site can result in the contamination becoming worse.

Lenient eligibility requirements may have resulted in a greater financial obligation for the state. According to the Tillinghast study, the state's liability for releases reported as of January 1, 1995, could be as high as \$297 million. This figure includes any releases where tank owners have failed to comply with UST regulations. In addition, if owners are eligible for free cleanups whether or not they upgrade their tanks, they may not have adequate incentives to pay for upgrades that could reduce future program costs. The Tillinghast study estimates that a maximum of 85% of South Carolina's USTs will achieve compliance.

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Some states limit owners' eligibility for funding based on their level of compliance.

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Some states limit owners' eligibility for funding based on their level of compliance. For example, prior to 1989, Minnesota's law required that owners found to be out of compliance with UST regulations be denied any reimbursement. In 1989, the legislature amended the law to specify that reimbursement be reduced rather than denied when tank owners fail to comply with UST regulations. In Georgia, owners who fail to comply with UST regulations may be liable for all cleanup costs. According to a Georgia official, owners found not to be in compliance usually have to pay a greater share of their cleanup costs than those in compliance. DHEC officials stated that it is difficult to deny owners under South Carolina's substantial compliance policy because denial of SUPERB coverage essentially amounts to the equivalent of a \$1 million fine.

A different approach from limiting eligibility based on non-compliance is to offer owners a financial incentive for upgrading their tanks to 1998 standards. North Carolina law limits the fund deductible for owners whose tanks meet the 1998 standards to \$20,000. Owners whose tanks do not meet the 1998 standards have a deductible up to \$75,000.

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## Recommendation

- 8 The General Assembly may wish to consider amending §44-2-40 of the South Carolina Code of Laws to allow DHEC to require that owners found to be out of compliance with UST laws and regulations pay a greater share of cleanup costs.

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## Substantial Compliance

DHEC has not ensured that all sites that reported a release after July 1, 1994, were in substantial compliance with tank regulations before being qualified for SUPERB funds. Section 44-2-40 states that, for releases reported beginning July 1, 1994, the SUPERB fund may not be used to pay for site rehabilitation where the tank was not in "substantial compliance" with underground storage tank regulations necessary to protect human health and the environment. Substantial compliance, as defined in §44-2-20, means:

... that an underground storage tank owner or operator has demonstrated a good faith effort to comply with regulations necessary and essential in preventing releases, in facilitating their early detection, and in mitigating their impact on public health and the environment.

However, according to a DHEC official, DHEC had an unwritten policy that sites where the releases were reported after tank abandonments<sup>2</sup> were automatically qualified for SUPERB funding. Staff did not conduct reviews of the sites to determine if the tanks were in substantial compliance.

We identified 29 sites with releases reported after July 1, 1994, that had been qualified for SUPERB funding. Of these, 19 automatically qualified because they were reported after a tank abandonment. DHEC did not check to see if the tanks and pipes at these sites had leak detection devices in place or if these devices had been regularly tested to ensure they were operating properly, as required by state underground tank regulations.

By not ensuring that sites were in substantial compliance with tank regulations, the state may be paying for site cleanups where it would not be required to do so under the law. Owners who did not take steps necessary to prevent releases, facilitate early detection of leaks and mitigate their impact, may receive state funds to clean up their sites. DHEC staff stated that no site with a release reported after July 1, 1994, has been disqualified.

On June 20, 1995, DHEC established a formal policy on substantial compliance. Under this policy, upon receiving notification of a release or

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<sup>2</sup> A tank abandonment is the process an owner must go through in order to permanently close a tank. Generally, this consists of cleaning and emptying the tank and then either removing the tank from the ground or filling it with an inert substance.

a tank abandonment, DHEC is to request leak detection records and perform a routine inspection of the site prior to the tank abandonment. Based on the information collected, staff will make a determination as to whether or not the tank was in substantial compliance, and thus qualifies for SUPERB funding.

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## Good Faith Effort

The definition of substantial compliance may make it difficult to deny owners access to the SUPERB fund even if they have failed to comply with UST regulations. As stated above, state law requires only that the owner demonstrate “. . . a good faith effort to comply . . .” with UST regulations.

The owner does not have to be in substantial compliance in order to qualify for SUPERB funds. According to a DHEC official, a formal definition of what constitutes a “good faith effort” has not been developed. Instead, it will be determined on a case-by-case basis.

Federal regulations specifying what owners must do to bring their USTs into compliance were issued in 1988. Since that time DHEC has used a variety of methods, including public meetings and newsletters, to inform owners of these requirements. Allowing owners who are not in substantial compliance with state and federal UST regulations to have access to SUPERB funds may not be in the best interest of the state.

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## Recommendations

- 9 DHEC should ensure that for all releases reported after July 1, 1994, the underground storage tanks are in substantial compliance with DHEC tank regulations before being qualified for SUPERB funding.
- 10 The General Assembly may wish to consider amending §44-2-20 of the South Carolina Code of Laws to revise the definition of substantial compliance by deleting the reference to good faith effort.



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## Improving the Enforcement Process

DHEC's enforcement of underground storage tank (UST) regulations needs improvement. DHEC has not adopted a formal written policy for its inspectors to follow when they identify violations of UST regulations. Instead, the inspectors have relied on a series of policy memorandums. In addition, DHEC's inspection program could benefit if DHEC tank inspectors were allowed to issue citations for minor violations. Also, we found that DHEC has not been meeting its goals for inspections and for attending tank abandonments and installations. Further, we recommend that DHEC consider using its food inspectors and Department of Agriculture inspectors to assist the UST program in identifying unregistered sites and tanks.

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## Enforcement Procedures

DHEC has tank inspectors in 12 districts around the state. These inspectors are responsible for inspecting businesses with USTs. When the inspectors find a violation of UST regulations, they notify the owner by letter and give him an opportunity to correct the violations. They refer serious violations, or violations which are not corrected, to the enforcement section in the bureau of drinking water protection.

We reviewed DHEC's policies and procedures, as contained in memorandums, for referring violations of UST regulations. Both the regulatory section and the enforcement section have issued instructions to the district tank inspectors. For example, on July 6, 1994, the regulatory section issued a policy memorandum identifying conditions under which sites were to be immediately referred to enforcement. Later that same month, the enforcement section, after consulting with the regulatory section, issued a memo to the inspectors revising the previous instructions about immediate referrals. Further, the enforcement section's standard operating procedures for the UST and SUPERB program states, ". . . it is the District Director's prerogative as to whether a referral is forwarded [to enforcement] or not."

This fragmented and vague policy-making can lead to inconsistent enforcement actions. We found several examples where inspectors have not consistently referred violations to enforcement. According to DHEC policy, unregistered sites or sites where there is an unregistered tank are to be immediately referred to enforcement. Sites without leak detection are to be referred after the owner receives one Notice of Violation (NOV).

According to information provided by a DHEC official, six unregistered sites and five sites with unregistered tanks were referred to enforcement in 1994. In 6 of the 11 cases, the sites were not immediately referred as required by policy. Instead, these sites received one NOV prior to being referred to enforcement. We also found instances where violations for which one or two NOVs are recommended received two or three NOVs.

According to a DHEC policy memo, the enforcement process can have a long "administrative tail." Although NOVs specify that corrective action must be taken by a certain date or penalties will result, DHEC does not have adequate controls to ensure that enforcement actions progress as specified.

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Implementation of a formal written enforcement policy could result in improved consistency of enforcement actions.

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DHEC has recognized the need to improve its enforcement process. In 1994, an internal DHEC committee was created to review the inspection and enforcement process. The committee noted that "... streamlining the enforcement process might be a definite need. This need is accentuated given the high number of facilities out of compliance on first visit . . . ." In August 1995, DHEC regulatory staff proposed changes to the inspection process that would help standardize the response to violations. The proposals included using fill-in-the-blank checklists and letters and having the central office personnel, instead of district tank inspectors, assume responsibility for monitoring owner response to violations.

If inspectors had a formal written policy for addressing violations, more consistent enforcement of UST regulations could result. DHEC could better ensure that its inspectors are not perceived as arbitrary or unfair. In addition, a clearly written policy could reduce the administrative workload for inspectors and the enforcement section as well as shorten the amount of time needed to resolve a violation.

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## Fines for Minor Violations

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DHEC's enforcement efforts could benefit by establishing a system for issuing fines for minor violations found during an inspection. In November 1994, an internal DHEC committee recommended that a system for automatically assessing small, uniform fines be considered. According to a DHEC official, it is unclear if DHEC has the authority to develop such a system.

The EPA uses a system of on-site citations and has found it to be an effective tool for gaining compliance with UST regulations. Citations are issued immediately upon the completion of an inspection for certain violations that are clear and easily verified. The penalty is lower than the penalty assessed under formal enforcement procedures to encourage the owner to settle, yet high enough to discourage intentional non-compliance. The EPA has issued citations for two sites in South Carolina. Both sites were fined \$300 for failure to provide leak detection for their tanks.

Georgia has a similar program which is called expedited enforcement. Under this program, tank inspectors conduct an inspection and give a copy of the results to the owner. However, unlike the EPA, tank inspectors in Georgia do not issue the citation on site. Instead, they mail the owner a letter containing a proposed Expedited Enforcement Compliance Order and Settlement Agreement. The owner has 30 days to sign the order, pay the fine, and certify that the violations will be corrected.

As with the EPA's citations, the fines are set low enough to encourage compliance yet high enough to discourage intentional non-compliance. According to Georgia's standard operating procedure for expedited enforcement:

The requirement of a monetary settlement payment helps to ensure that the UST owner/operator's will not choose non-compliance as a business decision. The risk of a monetary settlement helps to drive compliance in the regulated community.

Fines for individual violations in Georgia range from \$50 to \$300. According to an official in Georgia, the program has been in place approximately one year and they have issued 200 orders with an average total fine per site of less than \$1,000.

The ability to issue citations for violations of UST regulations could result in increased compliance with the regulations. In addition, both the EPA and Georgia officials noted that the program had reduced the administrative burden for the agency.

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## Recommendations

- 11 DHEC should establish a formal written policy for tank inspectors to use when they identify violations of UST regulations. This policy should include:
  - ☐ How long an owner has to correct violations.
  - ☐ Which violations will be immediately referred to enforcement.
  - ☐ What documentation or follow-up is needed to confirm that violations have been corrected.
- 12 DHEC should implement appropriate controls to ensure that inspectors followup on violations as required by policy.
- 13 DHEC should evaluate whether it possesses the legal authority to implement a system for issuing fines for minor violations found during inspections. If it is determined that DHEC does not have the authority, the General Assembly may wish to consider granting DHEC such authority.

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## Inspections

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In 1994, DHEC tank inspectors, on average, performed 67% of the inspections required.

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Overall, DHEC has not met its goals for performing routine inspections of tanks and attending tank abandonments and installations. In January 1993, tank inspectors were assigned to DHEC's 12 district offices. These inspectors were directed to perform a minimum of 180 compliance inspections per year. This number of inspections would allow them to reach the program's goal of inspecting each site once every three years. In addition, DHEC's goal is to have inspectors attend as many tank abandonments and installations as possible.

A primary objective of the routine compliance inspection is to ensure that the tank system is operating properly. This includes ensuring that leak detection systems are in place and are functioning correctly. Because the program relies on owners to detect and report leaks, ensuring that leak detection systems are in place and operating properly is especially important.

Tank installations and abandonments are recognized as key processes for staff to observe. A 1993 Texas report states that most tank releases are discovered during a tank removal. Also, program managers in Georgia estimated that 75% of all leaks were the result of poor installations.

We analyzed information about the number of inspections performed by DHEC's 12 districts during calendar year 1994 and found that, on average, DHEC inspectors performed 120 inspections, approximately 67% of the number required. The number of inspections performed varied by district from a high of 179 inspections to a low of 77 inspections (see Table 4.1).

According to DHEC officials, one reason for the inspectors' inability to meet their goals is that some districts do not have inspectors whose activities are dedicated to the tank program. The SUPERB program funds 12 district inspector positions. However, these positions are spread unevenly over the districts. For example, as of July 1, 1995, one district had only a 0.5 FTE while another had 1.85 FTEs devoted to the tank program.

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**Table 4.1: UST Compliance  
Inspections—1994**

#	DHEC District	Number of Inspections Done	Number Required	Percentage Done/Required
1	Trident	179	180	99%
2	Central Midlands	163	180	91%
3	Appalachia - I	147	180	82%
4	Upper Savannah	147	180	82%
5	Appalachia - II	131	180	73%
6	Appalachia - III	120	180	67%
7	Pee Dee	107	180	59%
8	Waccamaw	98	180	54%
9	Lowcountry	96	180	53%
10	Catawba	89	180	49%
11	Lower Savannah	84	180	47%
12	Wateree	77	180	43%
	<b>Total</b>	<b>1,438</b>	<b>2,160</b>	<b>67%</b>

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Source: Department of Health and Environmental Control

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## **"N" Site Inspections**

In addition, we found that district inspectors may not have been emphasizing the inspection of "N" sites as directed by management. "N" tanks are tanks that were in the ground and operating prior to the beginning of DHEC's tank permitting process in 1986. As a result, these sites are the ones most likely not to be in compliance with 1998 tank standards or currently mandated requirements. Beginning in July 1994, DHEC policy was to emphasize the inspection of "N" sites. According to an April 19, 1995, DHEC memorandum, "N" sites "... offer the greatest risk for leaks to occur and therefore should be afforded priority for inspection purposes." "N" sites comprise 3,944 (63%) of the 6,284 sites. DHEC's objective is to have all "N" sites inspected by July 1, 1997.

We reviewed 599 inspections conducted between July 6, 1994, and May 10, 1995, and found that 74% of the inspections were of "N" sites. The percentage of "N" site inspections by district ranged from a high of 83% to a low of 55%. A comparison of the percentage of "N" sites in the total site population to the percentage of "N" sites inspected does not provide clear evidence that inspectors have been emphasizing "N" sites.

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## **Abandonments and Installations**

We analyzed data about the number of tank abandonments and installations attended during calendar year 1994 and found that, on average, DHEC inspectors attended only 55% of the abandonments that took place. DHEC's database did not allow for an accurate analysis of the installations attended. According to DHEC staff, the percentage of total abandonments and installations attended is not tracked.

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## **Conclusion**

According to DHEC officials, the goals established for performing routine inspections and attendance at abandonments and installations are reasonable. However, district inspectors are not supervised by the SUPERB program but rather by district directors working with environmental quality control (EQC) (see p. 8). Also, according to DHEC officials, tank inspectors perform other activities associated with the tank program in addition to inspections. DHEC officials state that the tank program has received the equivalent of 14.2 FTEs while funding only 12. An analysis done by DHEC shows that 20% of this personnel time was spent on administrative duties.

A comprehensive inspection program can lessen the likelihood of leaks. According to reports filed with the EPA, 1,068 inspections done during federal fiscal year 1994 identified conditions for which corrective action was necessary. By attending tank installations and abandonments, DHEC can better ensure that these operations are being done properly to minimize the likelihood of future leaks.

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## Recommendations

- 14 DHEC should place a higher priority on the performance of routine compliance inspections and attendance at abandonments and installations.
- 15 DHEC should ensure that the districts emphasize the inspection of "N" sites in accordance with DHEC policy.
- 16 DHEC should monitor the percentage of total tank abandonments and installations attended by district.
- 17 DHEC should review its distribution of tank inspector positions to ensure that districts with the greatest workload receive the most FTEs.

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## Alternatives for Identifying Unregistered Tanks

DHEC's tank inspectors are still finding sites and tanks that have not been registered. DHEC may be able to obtain assistance in identifying unregistered USTs from Department of Agriculture inspectors and DHEC food inspectors. Section 44-2-60(A) of the SUPERB Act states:

The owner or operator of the tank shall display a registration certificate listing all registered tanks at a facility and in plain view in the office or the kiosk of the facility . . . .

State law also requires owners to pay an annual registration fee of \$100 per tank.

The Department of Agriculture's consumer services division inspects approximately 4,300 firms with gasoline pumps to ensure that the pumps are dispensing the proper amount of fuel. According to agriculture officials, these firms are inspected approximately once every nine months. DHEC's goal is to perform an inspection once every three years.

If Department of Agriculture inspectors checked for UST registration stickers, DHEC could discover businesses that have failed to register their tanks. In addition, sites where some, but not all, tanks have been registered could be identified. For example, we identified one site where six tanks were installed in 1986 but only four were registered. The other two tanks were not registered until 1994, approximately two weeks before they were abandoned. An on-site inspection could have revealed the two unregistered tanks.

DHEC officials stated that they are discussing using DHEC restaurant inspectors to help identify unregistered tanks at businesses that also must obtain a DHEC permit to serve food. Department of Agriculture officials expressed a willingness to discuss the use of their inspectors to check for tank stickers. According to a North Carolina official, North Carolina law was recently amended to allow Department of Agriculture inspectors to perform limited inspections for North Carolina's UST program.

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## Recommendations

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- 18 DHEC should begin using its food inspectors to help identify unregistered sites and tanks.
  - 19 The General Assembly may wish to consider authorizing the Department of Agriculture to use its inspectors to verify UST registrations.
  - 20 If the law is amended to authorize the use of Department of Agriculture inspectors, DHEC, in conjunction with the Department of Agriculture, should establish a system for using agriculture inspectors to verify UST registrations.



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# Appendices

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# Audit Scope and Methodology

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Our review was limited to the DHEC programs established by the State Underground Petroleum Environmental Response Bank (SUPERB) Act of 1988, as amended. We reviewed the administration of the SUPERB account and the underground storage tank regulatory program. We also examined the SUPERB financial responsibility fund, which was established by amendments to the SUPERB Act in 1992 and administered by the State Budget and Control Board until July 1995.

We did not review the management of federally-funded underground storage tank cleanups or other programs administered by DHEC. The period of review was the entire SUPERB program history from FY 88-89 to FY 94-95 for some aspects, with more limited periods of review for other areas.

We reviewed DHEC's reports about the SUPERB program and SUPERB administrative records, including technical and financial files for underground storage tank sites. We also reviewed an actuarial study of the SUPERB account completed by the Tillinghast company in June 1995. We reviewed information prepared by DHEC for the SUPERB Advisory Committee, information from the State Budget and Control Board about the SUPERB financial responsibility fund, information and publications from the federal Environmental Protection Agency (EPA), and documents and reports about underground storage tank programs in other states.

We conducted interviews with DHEC staff, officials with other South Carolina state agencies, EPA officials, officials with other states' underground storage tank programs, and other interested parties, including environmental contractors and representatives of the petroleum industry.

The primary criteria we used to measure program success were federal and state laws and regulations that govern underground petroleum storage tanks and tank owner financial responsibility. We also used general principles of financial and program management. We reviewed DHEC's management controls over payments from the SUPERB account, controls to protect the environment, and controls to encourage owner compliance with tank requirements.

We did not conduct a comprehensive review of the reliability of computer-generated data provided by DHEC; however, we noted problems with reliability of the groundwater tracking system (see p. 27). In most cases we did not rely on computer-generated data to meet our audit objectives. Also, when DHEC's computer-generated data was viewed in context with other available evidence, we believe the opinions, conclusions, and recommendations in this report are valid.

# Revenues and Expenditures for SUPERB/UST Program Administration

	FY 93-94	FY 94-95
<b>Revenues</b>		
Carry Forward (Tank Fees)	\$405,387	\$242,758
Tank Fees	\$1,982,911	\$1,937,608
Refund Prior Year Expenditures	\$36,148	\$0
Federal Grants	\$539,397	\$586,463
Department of Transportation	\$33,827	\$0
<b>Total Revenues</b>	<b>\$2,997,670</b>	<b>\$2,766,830</b>
<b>Expenditures</b>		
Personal Services	\$2,234,475	\$2,119,406
Agency Administrative Overhead	\$120,931	\$115,997
EQC Administrative Overhead	\$79,388	\$75,794
Contractual Services	\$49,211	\$126,444
Supplies and Equipment	\$152,010	\$42,854
Travel/Miscellaneous	\$24,673	\$20,886
Other Expenditures	\$91,374	\$35,234
Fixed Charges and Contributions	\$12,220	\$5,113
<b>Total Expenditures</b>	<b>\$2,764,282</b>	<b>\$2,541,728</b>

Source: Department of Health and Environmental Control.

# Recipients of SUPERB Payments in Excess of \$100,000, 1988–September 1995

Owners <sup>a</sup>			
Tenneco	\$2,296,012.41	SC Department of Transportation	\$261,638.38
Amoco Oil Co.	\$2,074,274.40	Baptist Medical Center	\$256,584.03
Crown	\$1,859,710.25	Penske Truck Leasing Co.	\$219,973.39
Pantry	\$1,669,679.26	State Budget and Control Board	\$217,724.00
Exxon	\$1,131,559.30	Santee Cooper (Public Service Authority)	\$189,408.55
Amerada Hess Corp.	\$979,461.28	Dilmar Oil Co.	\$163,549.94
Conoco	\$962,138.55	FINA Oil & Chemical Co.	\$159,629.50
EMRO Marketing Co.	\$885,300.06	PYA/Monarch Inc.	\$141,597.36
Southland Corp.	\$745,227.96	BP Oil Co.	\$137,693.66
BellSouth Telecommunications	\$702,360.08	Atlantic Soft Drink	\$125,062.95
Delta Airlines	\$599,825.44	ENMARK	\$124,776.66
AT&T	\$469,454.53	National Bank of SC	\$114,359.52
Chevron	\$430,714.11	Keenan Oil Co.	\$112,289.63
Ryder Truck Rental	\$405,613.85	University of South Carolina	\$111,876.82
Richland County Library	\$320,064.62	Majik Market	\$111,664.74
R.L. Jordan Oil Co.	\$296,288.48	Worsley Co., Inc.	\$109,844.43
Palmetto Trucking	\$286,059.63	Sun Oil Co., Inc.	\$100,572.59

**Appendix C**

**Recipients of SUPERB Payments in Excess of \$100,000, 1988–September 1995**

<b>Contractors<sup>b</sup></b>			
TET, Inc.	\$4,642,384.84	Blue Ridge Environmental	\$227,699.04
SPATCO Environmental	\$2,901,149.15	ESCM	\$214,974.45
Atlanta Testing and Engineering	\$2,100,572.60	RMT	\$208,516.15
S&ME	\$1,927,521.63	Professional Service Industries	\$206,164.34
General Engineering Laboratories	\$1,827,702.91	Steffen, Robertson & Kirsten	\$202,250.83
Kleen Sites Geoservices, Inc.	\$1,381,240.74	ESE Biosciences	\$187,030.43
TPST Soil Recyclers of SC	\$1,320,477.76	National Environmental Technologies, Inc.	\$183,661.76
Southeastern Soil Recovery, Inc.	\$1,150,960.67	SPERO Corp.	\$178,135.41
Shield Environmental Associates, Inc.	\$1,088,963.30	Carolina Resource Technologies, Inc.	\$177,003.87
IT Corporation	\$1,042,240.04	EA Services	\$174,852.09
CBM Environmental Services	\$766,428.81	Rogers & Callcott Engineers, Inc.	\$170,660.47
ViroGroup — ETE Division	\$751,583.49	Environmental Hydrogeologic Consultants	\$159,189.36
ATEC Associates, Inc.	\$640,291.36	Ecological Services	\$153,524.22
F&ME	\$628,093.19	Petroleum Works, Inc.	\$151,882.75
Davis & Floyd, Inc.	\$606,642.17	Associated Environmental, Inc.	\$145,913.50
Richard Catlin & Associates, Inc.	\$558,714.64	Applied Technology & Management, Inc.	\$132,701.81
LandRec	\$546,207.27	Environmental Engineering Co.	\$130,026.93
Duncan Environmental Associates, Inc.	\$530,441.26	RUST Environment & Infrastructure	\$127,843.89
Law Environmental, Inc.	\$513,592.39	G & K Tank Services	\$127,101.63
Law Engineering, Inc.	\$483,312.30	Integrated Science & Technology, Inc.	\$119,281.80
Soil Remediation Company	\$436,689.08	Missimer & Associates, Inc.	\$114,886.55
EE&G (formerly Enviropact)	\$412,491.69	Dames & Moore	\$110,793.42
Clark Environmental Services, Inc.	\$394,974.34	Blando Environmental	\$106,450.18
ETE	\$366,848.07	Westinghouse	\$104,759.65
SBP Technologies	\$363,038.82	Geosciences, Inc.	\$102,246.09
REMTECH	\$256,773.81	UTTS, Inc.	\$102,238.90

<sup>a</sup> DHEC payments to owners are reimbursements for prior payments owners had made to contractors; these amounts do not necessarily reflect all payments to clean up an owner's sites because other bills may have been paid directly to contractors.

<sup>b</sup> Payments to contractors reflect payments directly to them and may include payments for many sites with different owners.

Source: Department of Health and Environmental Control.

# Agency Comments

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**Appendix D**  
**Agency Comments**

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October 18, 1995

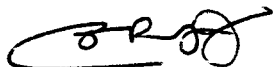
Mr. George L. Schroeder, Director  
Legislative Audit Council  
400 Gervais Street  
Columbia, SC 29201

Dear Mr. Schroeder:

I have reviewed the revised draft report prepared by your office for the SUPERB Account and this Department's Underground Storage Tank Program. This agency's final comments are enclosed.

Again, I would like to acknowledge the cooperation extended by your staff during the review. If you have any questions on our comments, please contact me at 734-4900.

Sincerely,



Benjamin R. Lee, Jr., Deputy Commissioner  
Administrative Services

cc: Doug Bryant

**Response of Department of Health and Environmental Control  
Legislative Audit Council (LAC) Report  
Superb Account and Underground Storage Tank Program**

**LAC Recommendation 3 - SUPERB Fund Administration**

**We concur with the recommendation and will develop guidance for verifying previous claims during site inspections.**

**LAC Recommendation 4 - DHEC Procurement of Environmental Services**

**We concur with the recommendation and plan to use the economies of scale and competitive pricing in our new approach.**

**LAC Recommendation 5 - Cleanup Priorities**

**We concur with the recommendation and have already expended considerable effort to insure funding goes to priority releases.**

**LAC Recommendation 6 - Project Review**

**We concur with the recommendation and have developed standard operational procedures for reviewing cases.**

**LAC Recommendation 7 - Database**

**We concur with the recommendation and have already established some internal control measures. The system now provides an audit trail for all entries. Secondly, the system has been modified so that improperly coded dates (for tracking project progress) are rejected by the system.**

**LAC Recommendation 9 - Substantial Compliance**

**We concur with the recommendation and have developed standard operating procedures to verify compliance. We reaffirm the correctness of our decision to qualify those releases identified during tank abandonments which occurred shortly after the amendment became effective. Tank abandonments are a form of abatement, and therefore, these activities fall into the intent of the statute amendment as being a good faith measure such that qualification is not prohibited.**

**LAC Recommendations 11, 12, and 13 - Enforcement**

**We concur with the recommendations. The UST Program has developed a field inspectors handbook to augment consistency and have developed streamlined procedures that address those issues listed in 11. We will explore our capabilities for issuing field citations and pursue such authority, as appropriate.**

**LAC Recommendations 14, 15, 16, and 17 - Inspections**

**We concur with the recommendations.**

**LAC Recommendation 18 - Alternatives for finding unregistered tanks**

**The Department will evaluate the potential for utilizing non program personnel (such as food service inspectors) to assist in identifying unregistered underground storage tanks.**

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This report was published for a total cost of \$729.59; 325 bound copies were printed at a cost of \$2.24 per unit.